



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,985

05/10/2006

Eiji Muramatsu

8048-1149

1785

466 7590 04/01/2009
YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

04/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,985	Applicant(s) MURAMATSU ET AL.	
	Examiner Kim-Kwok CHU	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 12/31/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17,20-23,25-31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17,20-23,25-31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/30/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Remarks

1. Applicant's Remarks filed on December 31, 2008 have been fully considered but they are not persuasive.

With respect to the amended feature "recordable maximum speed for each of the plurality of recording layers" in Claim 17, Applicant argues that the prior art of Lee et al. (U.S. Patent 7,113,475) does not teach whether the speed flag/code is for a plurality of recording layers or common to the whole of plurality of recording layers (page 12 of the Remarks, lines 9-15). Accordingly, the prior art of Lee teaches that a maximum speed information "recorded as a recording layer flag or code" (column 2, line 56). In other words, the maximum speed information is applied to a recording layer. On the other hand, although the prior art of Lee does not specify which layer is responds to the maximum speed information, it is reasonable to assume that each one of Lee's recording layers is assigned to the maximum speed information as illustrated in Fig. 3A. In this case, since Applicant does not specify how his claimed maximum speed is assigned to each of his plurality of recording layers, it is reasonable to assume that the maximum speed is common to each of the recording layers similar to the prior art of Lee's.

Art Unit: 2627

Furthermore, Applicant argues that the prior art of Lee's test zones 30a, 30b are calibration areas and therefore they do not stores strategy information (page 13 of Remarks, lines 6-8). Accordingly, a test zone storing laser power calibration data should be considered as a disc writing strategy information unless Applicant has other specific definition of the claimed strategy information.

Claim Objections

2. Claim 27 is objected to because of the following informalities.

In Claim 27, lines 8 to 19, the amended paragraph does not include punctuations.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

4. Claims 17, 20-23, 25, 26 and 33 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al. (U.S. Patent 7,113,475).

Lee teaches an information recording medium having all of the elements and means as recited in claims 17, 20-23, 25, 26 and 33. For example, Lee teaches the following:

with respect to Claim 17, the information recording medium comprising a plurality of recording layers to record therein information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (Fig. 1; lead-in is a management information area; column 4, lines 1-4) to record therein recording condition information 35 (Fig. 2) which indicates an optimum recording condition for each recording layer when the information is recorded (Figs. 3A and 3B; column 5, lines 4-16),

the recording speed information 35 which indicates the recordable maximum speed (common to all layers) for each of the plurality of recording layers is recorded in the management information area (Figs. 3A and 3B; all/each recording layers are assigned to the maximum recording speed), the recording condition information (test zone data) 35 for each of the plurality of recording layers is recorded in the management information area (lead-in), correspondingly to the recording speed information (Figs. 3A and 3B; each recording layer has a lead-in area), the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording condition information 35 with respect to the plurality of recording layers is collectively recorded (Figs. 3A and 3B; maximum speed is collectively recorded in b4-b7), the recording condition information (test zone data) includes strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

with respect to Claim 20, a table (Fig. 2) on which the recording speed information and the recording condition information are registered (recorded) for each of the plurality of recording layers, and which has an index (number), is recorded in the management information area (Figs. 3A and 3B).

with respect to Claim 21, identification information 10a (Fig. 1) for identifying the information recording medium is recorded in the management information area (Fig. 1).

with respect to Claim 22, the recording condition information is at least partially recorded (pre-recorded by manufacturer) from the beginning of production of the information recording medium, as pre-information of the information recording medium (Fig. 1; column 4, lines 5-10).

with respect to Claim 23, the recording condition information 30 (Fig. 1) is at least partially recorded or updated (re-recordable), as written-once or rewritable information (Fig. 1).

with respect to Claim 25, the management information area (lead-in) is disposed in each of the recording layers (Fig. 1; each recording layer has its lead-in area).

with respect to Claim 26, the recording speed information 30 is defined to indicate a higher speed (maximum) in an upper layer side out of the plurality of recording layers (Figs. 3A and 3B; one layer has a maximum speed information recorded).

with respect to Claim 33, the recording condition information 30 includes optimum power information (disc test) of laser for recording (Fig. 1).

Art Unit: 2627

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 27-31 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (U.S. Patent 7,113,475) in view of Ito et al. (U.S. Patent 7,184,377).

7. Lee teaches an information recording medium very similar to that of the present invention as recited in Clams 27-30. For example, Lee teaches the following:

with respect to Claim 27, the recording medium (Fig. 1) comprising a plurality of recording layers to record therein the information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (lead-in) to record therein recording condition information 30 (Fig. 1) which indicates an optimum recording condition (such as OPC under a certain disc speed) for each recording layer when the information is recorded (Figs. 3A and

Art Unit: 2627

3B; column 5, lines 4-16), the recording speed information 35 which indicates the recordable maximum speed (common to all layers) for each of the plurality of recording layers is recorded in the management information area (Figs. 3A and 3B; all/each recording layers are assigned to the maximum recording speed), the recording condition information (test zone data) 35 for each of the plurality of recording layers is recorded in the management information area (lead-in), correspondingly to the recording speed information (Figs. 3A and 3B; each recording layer has a lead-in area), the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording condition information 35 with respect to the plurality of recording layers is collectively recorded (Figs. 3A and 3B; maximum speed is collectively recorded in b4-b7), the recording condition information (test zone data) includes strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

with respect to Claim 30, identification information 10a for identifying the information recording medium is recorded in the management information area (Fig. 1).

However, Lee does not teach the following:

with respect to Claims 27 and 29, an information recording apparatus comprising a reading device for reading the recording condition information from the management information area;

with respect to Claims 27 and 28, a recording speed setting device for setting a recording speed and the optimum recording condition corresponding to a recording target layer in which the information is to be recorded, on the basis of the read recording condition information;

with respect to Claim 27, a recording device for recording the information into the recording target layer at the set recording speed;

with respect to Claim 29, an information recording apparatus comprises a storing device in which the recording condition information which indicates recording condition is registered;

with respect to Claim 29, the recording speed setting device sets the recording speed and the optimum recording condition, on the basis of (i) the read recording speed information and (ii) a recording condition information which corresponds to the read recording speed information, out of the recording condition information which is registered in the storing device.

with respect to Claim 30, the reading device reads the identification information from the management information area,

with respect to Claim 30, the information recording apparatus ac comprises a storing device in which (i) recording speed information which indicates the recordable maximum speed and (ii) the recording condition information which indicates an optimum recording condition for each of a plurality of recordable maximum speeds are registered, for each identification information for identifying respective one of a plurality of information recording media; and

with respect to Claim 30, the recording speed setting device sets the recording speed and the optimum recording condition, on the basis of a recording speed and an optimum recording condition which correspond to the read identification information, out of the recording speed information and the recording condition information which are registered in the storing device.

Ito teaches the following:

an information recording apparatus (Fig. 18) comprising a reading device 535 (column 22, lines 11 and 12) for reading the recording condition information (Fig. 5; disc information, OPC information related to disc speed etc.) from the management information area (lead-in) (Figs. 16 and 19; step 602);

a recording speed setting device for setting a recording speed 509 (servo circuit in Fig. 18) corresponding to a recording target layer in which the information (disc information) is to be recorded, on the basis of the read recording condition information (Fig. 19; step 602; recording speed is controlled by the servo circuit);

a recording device 535 (Fig. 18) for recording the information (OPC/speed) into the recording target layer at the set recording speed (Fig. 18);

a storing device (in servo circuit 509) in which the recording condition information (such as speed) which indicates recording condition is registered (servo control maintains the speed condition of the medium);

the recording speed setting device 509 (Fig. 18) sets the recording speed (servo control) and the optimum recording condition (servo control), on the basis of (i) the read recording speed information and (ii) a recording condition information which corresponds to the read recording speed information, out of the recording condition information which is registered in the storing device (read/write operation affects the servo speed condition of the medium 50);

the storing device (register in servo control 509) in which (i) recording speed information which indicates the recordable

Art Unit: 2627

maximum speed and (ii) the recording condition information which indicates an optimum recording condition for each of a plurality of recordable maximum speeds are registered, for each identification information for identifying respective one of a plurality of information recording media (Fig. 18; servo control is operated under the disc information stored in the lead-in area);

the reading device reads the identification information from the management information area (Fig. 19), and

the recording speed setting device 509 (Fig. 18; servo control) sets the recording speed and the optimum recording condition, on the basis of a recording speed and an optimum recording condition which correspond to the read identification information, out of the recording speed information and the recording condition information which are registered in the storing device (Fig. 18).

A lead-in area in an optical storage medium is used to store disc operating information such as disc speed as disclosed in the prior art of Lee. Although Lee does not teach an information recording apparatus operated under the information stored in the lead-in area, however, to control the operation of read/write Lee's storage medium, it would have been obvious to one of ordinary skill in the art to apply an optical information

Art Unit: 2627

apparatus such as Ito's to read/write Lee's lead-in operating information stored in the storage medium, because the reading/recoding and speed control devices such as Ito's can access the stored disc optimum operating in the lead-in area and then operate the storage medium accordingly.

8. Claim 31 has limitations similar to those treated in the above rejection, and is met by the references as discussed above.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2627

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627
March 26, 2009
(571) 272-7585

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627